Presentation Switchers

digital presentation systems

Series 500

Industry's First Modular Digital Presentation Switchers.

The Series 500 line of presentation switchers is setting the standard for single room, single display conference rooms, classrooms, lecture halls, and military briefing centers — worldwide.

Presentation Switchers

SINGLE PROJECTION ROOMS

Designed specifically for single projector or display panel conference and training facilities, the Series 500 modular digital presentation switchers include all major features associated with multimedia systems, including:

- Simple Source Selection
- Digital Switcher
- Backward Compatible with Analog Devices
- Simultaneous VGA and HDMI Video Outputs
- Dual Stereo Line Level and 70/100V Speaker Outputs
- Projector and Screen Control
- Auto Signal Detection and Switch
- ...and so much more

MODULAR & FLEXIBLE

Conventional switchers require designers to sift through catalogs of products to find switchers with the appropriate number of signal types needed. Designers are often required to select less favorable signal types, add costly scalers or special cables, or select switchers with substandard features. Presentation Switchers has taken an entirely different approach with the Series 500.

The Series 500 begins with a modular digital enclosure. Input cards are inserted into the enclosure for each source. HDMI, VGA, DisplayPort, DVI, Component, Composite, and S-Video are the analog and digital signal types supported today. With a single screw, integrators are able to “field upgrade” systems already installed. The design of the Series 500 allows the system to grow or change as user’s needs change essentially creating a “future proof” design.

Series 500 Model PS510 “Under Table” Enclosure -Back View

Series 500 Model PS550 Enclosure -Back View

Model	Front Panel	Input Slots	Video Output	Speaker Output	Line Output	External Control	Projector Control
PS510	No	4	VGA & HDMI	No	Stereo Balanced	Ethernet & RS-232	Yes
PS550	Yes	7	VGA & HDMI	70V (100W)	Stereo Balanced	Ethernet & RS-232	Yes
PS552	Yes	7	VGA & HDMI	100V (100W)	Stereo Balanced	Ethernet & RS-232	Yes
PS530	Yes	7	VGA & HDMI	No	Stereo Balanced	Ethernet & RS-232	Yes
PS545	Yes	7	VGA & HDMI	70V (100W)	Stereo Balanced	RS-232	Yes

ENCLOSURE OPTIONS

Integrators can simply select from one of the enclosure options and input board combinations for each project. Audio and video output boards and a communication board are standard features in each enclosure - only the input boards remain unpopulated.

The table at the bottom of Page 2 helps to define the appropriate enclosure for each project. Once an appropriate enclosure is selected the designer begins the process of selecting input board options.

INPUT BOARD OPTIONS

Series 500 enclosures support up to 7 input board assemblies. Boards are selected from the table below and inserted in the enclosure in any combination. Boards are generally shipped pre-installed; however, some international distributors ship boards separately.

Additionally, field upgrade or modifications often necessitate these boards to be ordered and shipped separately. Field upgradability and servicability is one of the many unique features of the Series 500 presentation systems.

Input Assembly	Features
IN501 HDMI	• HDMI V1.3b, w/Deep Color • 6.75 Gbps, 225 MHz • HDTV up to 1080p @ 60 Hz • PC Resolutions to 1920 X 1200 • Digital Audio: Dolby TrueHD, Dolby • Digital Plus, DTS HD Master Audio
IN503 Composite or S-Video	• Composite Video or S-Video • Unbalanced Stereo Audio via RCA • Audio is Digitized and Embedded in HDMI Output Stream • Built-In Integrated Scaler
IN505 DisplayPort	• DisplayPort Digital Video, Apple/Mac • 6.75 Gbps, 225 MHz • HDTV Resolutions up to 1080p @ 60 Hz or 720p/1080i @ 120 Hz, 12-bit color • PC Resolutions to WUXGA (1920 X 1200) • Equalization: Automatic, up to 20m
IN507 Dual HDMI & VGA	• HDMI V1.3b (Specifications Same as IN501) • VGA (HD-15 Connector) (Specifications Same as IN502)
IN512 Dual VGA	• RGBHV Resolutions up to 1920 X 1080p • 3.5mm Stereo Audio Input • Built-In Integrated Scaler • Audio is Digitized and Embedded in HDMI Output Stream

Input Assembly	Features
IN502 VGA	• RGBHV Resolutions up to 1920 X 1080p • 3.5mm Stereo Audio Input • Built-In Integrated Scaler • Audio is Digitized and Embedded in HDMI Output Stream
IN504 DVI-D	• DVI V1.0, DVI-D on DVI-I Connector • 3.5mm Unbalanced Stereo Audio • 7.5 Gbps (2.5 Gbps per color), 235 MHz • HDTV Resolutions up to 1080p @ 60 Hz • PC Resolutions to 1920 X 1200 • Combines DVI-D with Stereo Audio
IN506 Component	• Component Video Input Board Assembly • Y, Pb, Pr or RGB (NTSC/PAL) • Audio is Digitized and Embedded in HDMI Output Stream • Built-In Integrated Scaler • Equalization: Automatic, up to 20m
IN511 Dual HDMI	• (2) HDMI V1.3b, w/Deep Color • 6.75 Gbps, 225 MHz • HDTV up to 1080p @ 60 Hz • PC Resolutions to 1920 X 1200 • Digital Audio: Dolby TrueHD, Dolby • Digital Plus, DTS HD Master Audio
IN500 Blank Plate	• Protective Cover for Future Expansion • Easily Removed with (1) Screw

FIELD UPGRADABLE

All Series 500 enclosures offer field upgradability. The addition of a new digital source no longer requires an entire system redesign. Instead, the integrator need only remove a blank plate and insert a new card. The system automatically recognizes the new board and the system is ready for business. When input boards are inserted or changed, no programming is required for the Series 500 system.

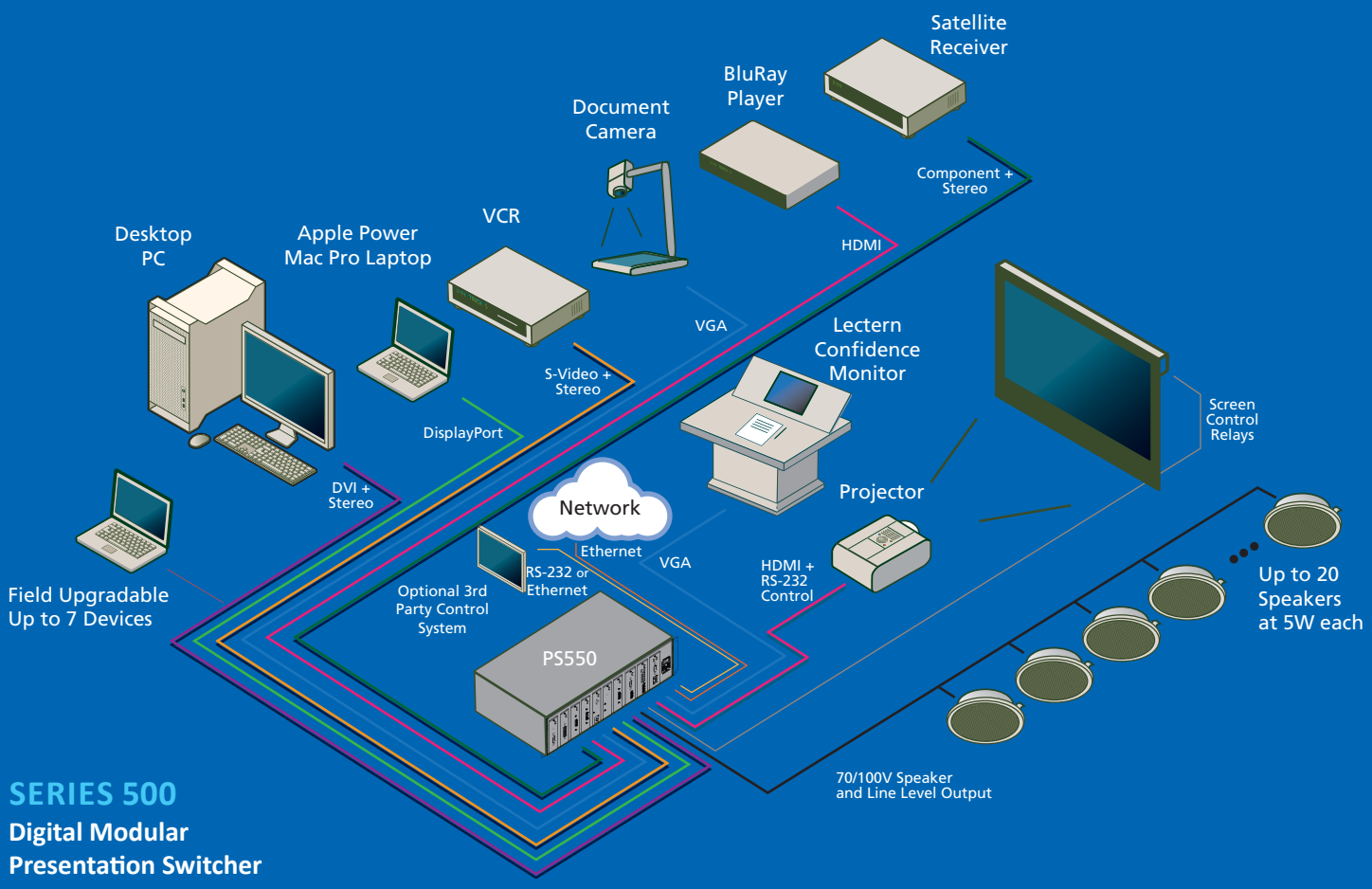
DIGITAL PRESENTATION SWITCHER

The Series 500 is a fully digital switcher offering backward support for analog source devices. Analog signals are converted to digital signals. Signals of lower resolutions, such as Composite, S-Video, or VGA at lower resolutions are scaled as necessary to match projector resolutions for crisp and clean images. This design allows customers and systems integrators to use today's higher resolution display devices while supporting a wide variety of sources.

AUTOMATIC SWITCHING (OPTIONAL)

Processors on each input board watch for video activity. Upon image recognition the new active signal is automatically selected for presentation. In many cases, this simple feature removes the necessity for complex control systems. When the signal is lost, the system "hunts" for a valid video signal starting at input 1 and continuing through input 7.

For example, input 1 is a room computer system. Input 2 and 3 are the document camera and DVD player. Input 4 is a guest computer port. When the guest powers his/her laptop the system automatically displays the image on the screen. When the guest power down his/her laptop the system returns to display the room computer.



SERIES 500

Digital Modular Presentation Switcher

ONE-TOUCH SOURCE SELECTION

The front panel is extremely easy to use. Source selection is available using a one-touch operation. An LED located above each button identifies the active source selected as feedback for each button press. Internally, the LED only illuminates when the system confirms that the signal has been switched.

VOLUME CONTROL

Volume control is a standard feature for the Series 500 using the rotary digital knob located on the front panel. Volume control can adjust the line level audio output or be “fixed” at a predefined level.

70/100V SPEAKER OUTPUTS

In today’s commercial presentation environments, 70V (and 100V for International markets) audio systems are becoming commonplace. The PS550 presentation switcher features a 70V, efficient Class D amplifier, for a speaker output at 50W per channel or bridged for 100W mono.

The International version, the PS552, provides a 100V solution. Higher voltage speaker systems translates into smaller, less expensive cables traveling further distances with more speakers in parallel.

LINE LEVEL AUDIO OUTPUT

Line level audio is provided for video conference feeds or when audio needs to be routed to a mixing board. Using the front panel settings, the output levels of the line out can be fixed or can vary depending upon the volume controls of the Series 500 presentation switcher.

AUDIO INPUT LEVEL ADJUSTMENT

It is not uncommon for source audio to vary from -10dB (pro-audio formats) to +4dB (consumer formats).
The resulting experience is obvious differences in volume when switching between inputs.

With the Series 500, audio inputs can be adjusted to temper or attenuate “hot” signals to a nominal level through an easy-to-use front panel adjustment.

EDID SUPPORT

Source and Display EDID negotiation is provided in pass through mode or using a table look up method. Additionally, EDID pass through may be obtained through the HDMI output port (default) or through the VGA port. Both options are selectable through the front panel menu.

CN501
Communications Assembly

AO501
Stereo Audio Output Assembly

PROJECTOR CONTROL

Programmed by a Windows-based application downloadable free from the PS website, integrators can program the Series 500 with power-on and power-off commands. For example, when a new input signal is detected and the projector is off the CN501 card will issue a projector power-on command. At the same time, relays are triggered to lower the screen. After a user defined period of non-activity, the projector will be instructed to turn off and the relay to retract the screen will be enabled.

3RD PARTY CONTROL SYSTEMS

Presentation Switchers provides support for 3rd party control systems such as Crestron® and AMX® using RS-232 or Ethernet. (Ethernet is not available on the PS545 model.) Control includes support for source selection, volume control (absolute, relative, and mute), source detection, system information dump, and others).

SOURCE SELECT BROADCAST

The Source Select Broadcast (SSB) feature sends a message out the RS-232 port anytime a new source is selected. This optional unsolicited broadcast keeps third party controllers up to date with any input select change occuring from the front panel or Ethernet port.

Note: Crestron is a registered trademark of Crestron Electronics, Inc.
AMX is a registered trademark of AMX Corporation.

Presentation Switchers

FUTURE PROOF DESIGNS

Audio-visual manufactuers are migrating away from traditional analog signals such as VGA, Component, Composite, and S-Video to digital formats like HDMI, Mini-HDMI, DVI-D, DisplayPort, and Mini-DisplayPort. Formats are changing with no clear leader. Meanwhile, costs in travel in a global marketplace are increasing the demands on the typical board room with budgets requiring us all to do more with less. This means utilizing more existing user equipment in our designs. The Presentation Switchers' Series 500 modular digital presentation switchers are designed to meet this challenge.

Modularity = Flexibility. The Series 500 will accept legacy equipment and convert analog signals, including stereo audio, into digital formats typical of newer projectors and LCD display panels. It will also support today's newest digital signal formats including the DisplayPort, common on most Apple laptop and desktop models.

AUTOMATION & INTEGRATION

Automation. The Series 500 includes many features which automate the presentation environment without costly 3rd party control systems. Features include projector on and off, lowering and raising screens, and signal sense auto-switching.

Integrated Audio and Video. Having audio integrated into the presentation environment at the switcher simplifies and lowers installation costs. Analog audio is sampled (digitized) and embedded within the digital video stream. For example, a VGA source with stereo audio can be comfortably routed to a HDMI 1080p LCD panel complete with embedded stereo audio.
An internal 100W amplifier provides powerful speaker level output supporting as many as 20 speakers at 5W taps for exceptional coverage in mid-size and larger conference rooms.

ORDERING A SERIES 500 SWITCHER

1. SELECT AN ENCLOSURE

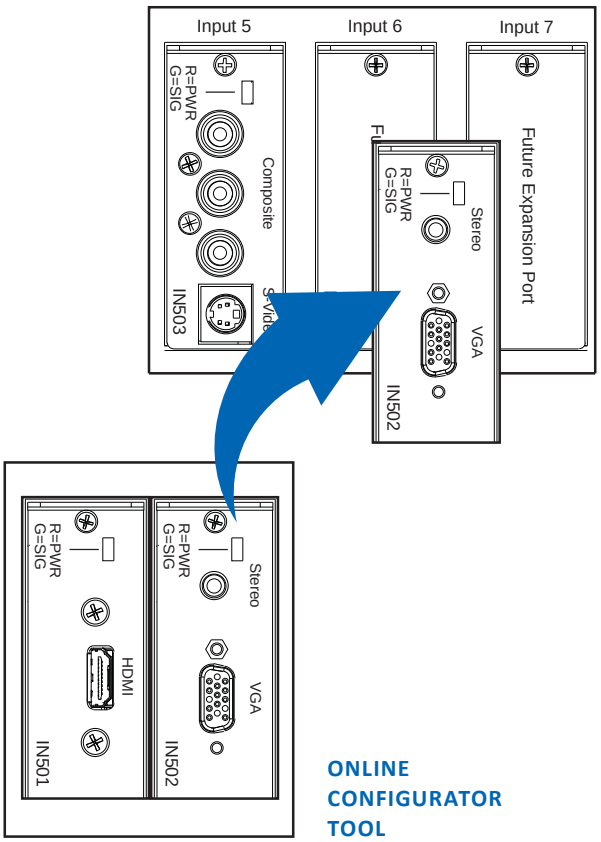
Use the table on Page 2 to select the enclosure.
The primary difference between the various enclosures is the audio output type and communication options.

2. SELECT INPUT BOARDS

Use the table on Page 3 to select the input board assembly. One input board should be selected for each source connected to the switcher. You can select any board and place it in any input slot in the enclosure.

3. PLACE ORDER

Place your order by specifying the enclosure model number, such as PS550 along with the quantity and model number of the input board assemblies, such as IN506.



ONLINE CONFIGURATOR TOOL

USING ONLINE CONFIGURATOR TOOL

1. SELECT AN ENCLOSURE

Use the table on Page 2 to select the enclosure as stated above. Note that the primary difference between enclosure options is the audio output type and communication option.

2. GO ONLINE

Go online to Presentation Switchers website:

www.PresentationSwitchers.com and select the Products pull down menu from the main navigation bar. Select the enclosure you selected and look for the button:

3. DRAG AND DROP INPUT BOARDS

Locate the available input boards displayed on the bottom of the “Build a Solution” application. Click and drag the input board assembly and place it in a slot location (Input 1 through Input 7) on the enclosure rear view drawing above. Repeat this process until all input boards have been selected for the particular project. Remember that the input boards can be field upgraded at a later time.

4. PRINT

When you have finished designing your system, select the Print button to print your solution. When the Print button is pressed you will notice a label appear next to the Print button similar to the one below:

PS530-1132302

This model number identifies the solution you have created during the drag and drop process. This single set of letters and numbers can be used to recreate the design you just created. It will also give you a single number to identify all the features and options in your design. Use this number when ordering your system.

PRESENTATION SWITCHERS INC.

Presentation Switchers is an international AV manufacturer with headquarters located near Los Angeles. Founded in 2010 by industry veterans, all design, development, manufacturing, assembly, and testing is performed in the Los Angeles basin of California.

Focused entirely on digital presentation systems, the company's flagship product line, the Series 500, embodies the spirit of the company by becoming the industry's first (and only) modular digital presentation switcher. The system is hardware field upgradable and field serviceable - one of just a few in the industry.

Presentation Switchers is quickly gaining the respect of peer manufacturers, consultants, integrators, and end users as a leader in digital switching technologies.

www.PresentationSwitchers.com

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